|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | Amazon AWS | Google AppEngin | Microsoft Azure | IBM Smart Business Dev. |
| focus | | Infrastructure as a service | Platform as a service | Infrastructure as a service, platform service service | Infrastructure as a service |
| Infrastructure and virtualization architecture | | AWs infrastructure | Uses Google Computing Engine as infrastructure | Uses Microsoft Azure Express Route | Uses IBM Cloud Computing Architecture |
| Platforms | | Linux and Windows Servers | Linux and Windows Servers | Linux and Windows Servers | Linux and Windows Servers |
| Persistent Storage | | EC2- Elastic Cloud Storage | MySql | Azure SQL Data Base | It is independent and can be binded to any service |
| Monitoring | | Amazon cloud watch | Google cloud monitoring | Azure Management Portal | IBM smart cloud monitoring |
| Load Balancing | | Elastic Load balancing. It distributes the incoming traffic across multiple EC2 instances. | Google compute engine load balancing | Microsoft Azure load balancer and Round Robin load balancing | Virtual load balancing |
| Message Queues | | Amazon simple queue service | Push Queues  Pull Queues | Azure queues and service bus queues | IBM web sphere message queue |
| Development Tools | | Amazon SDK with management console | Local SDK –Python, Java,  Eclipse, Netbeans,  IntellIJ, Maven, Git, Jenkins, PyCharm  Google Web Toolkit (GWT) | SDKs for .Net, Java, Node.js, PHP, Python, Ruby, Azure powershell | IBM domino designer, IBM connector |
| Integration with other services | | It jhas EC2 integration and Riak | Node.js technologies, Hadoop, Celery, Redis, Solr | Various .NET services and database services like Hadoop | Supports integration of database technologies |
| Web APIs | | Available | Available | Available | Available |
| Programming Framework | | .NET, Java, PHP, Python, Ruby | Java, Python, Go, PHP | .Net, Java, Node, PHP, Python, Ruby | Java, Node, Ruby |
| Pricing | Machine CPU | $0.14/hour | $0.10/hour | $0.10/hour | $0.12/hour |
| Storage | $0.25 / GB / month | $0.18 / GB / month | $0.15 / GB / month | $0.15 / GB / month |
| I/O | $0.01/1000requests | $0.12/1000requests | $0.01/1000requests | $0.01/1000requests |
| Bandwidth | $0.10/GB | $0.10/GB | $0.10/GB | $0.10/GB |

Cloud Computing Platforms Comparison

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**Class ID : 19**